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Running Head: POWER AND SUBJECTIVE EXPERIENCES

When Subjective Experiences Matter:

Power Increases Reliance on the Ease of Retrieval

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Abstract

Past research on power focused exclusively on declarative knowledge, and neglected the role of subjective experiences. Five studies tested the hypothesis that power increases reliance on the experienced ease or difficulty that accompanies thought generation. Across a variety of targets such as attitudes, leisure-time satisfaction, and stereotyping, and using different operationalizations of power including priming, trait-dominance, and actual power in managerial contexts, power consistently increased reliance on the ease of retrieval. These effects remained one week later, and were not mediated by mood, quality of the retrieved information, or number of counter-arguments. These findings indicate that powerful individuals construe their judgments based on momentary subjective experiences, and do not necessarily rely on core attitudes or prior knowledge such as stereotypes.

I don't spend a lot of time taking polls around the world to tell me what I think is the right way to act. I just got to know how I feel.

-- George W. Bush, US president (Nov. 2002)

Individual and collective outcomes are to a great extent the result of judgments and decisions made by powerful actors. Political leaders embark on wars, executives define organizational objectives, teachers evaluate students, doctors prescribe treatments, and parents make family decisions. In short, powerful roles require individuals to make judgments and decisions with important implications for others. Anecdotal evidence, such as George Bush's comment, would suggest that feelings play an important role in the judgments made by powerful actors. However, past research on power focused exclusively on the declarative content that formed the basis for powerful individuals' judgments. Accompanying subjective experiences were not considered. The present article rectifies this neglect proposing that power promotes reliance on experience-based information.

Human reasoning is accompanied by subjective experiences, such as affective feelings (e.g., sadness, fear), bodily sensations (e.g., hunger, fatigue), and feelings that accompany thought processes (e.g., ease of retrieving mental contents, feeling of familiarity; see Schwarz & Clore, 1996). Subjective experiences derive from perceptual systems and sensations that arise while individuals process information, form judgments, and engage in action (Strack, 1992; see also Kahneman, 2003). These experiences are a source of information, and such experiential information is often used to guide judgments and behavior (e.g. Schwarz, 2004; Schwarz & Clore, 1996; Schwarz & Vaughn, 2002; Strack, 1992). For example, the feeling of familiarity informs us that we have encountered a given stimulus before; the feeling of guilt can be used to judge the

appropriateness of our ongoing actions; or the feeling of difficulty in retrieving exemplars can inform us about the frequency of an event.

In the present article we propose that power promotes reliance on experiential information. Our proposal derives from research indicating that subjective experiences are a primary aspect that drives cognition (see Kahneman, 2003; Kahneman & Frederick, 2002; Strack, 1992; Whittelsea & Williams, 1998), and power induces a simplified processing orientation that focuses on single sources of information (Guinote, 2007-a; 2007-b; see also Fiske & Dépret, 1996; Keltner, Gruenfeld, & Anderson, 2003). We will first briefly describe the role of experiential information in the construction of judgments. Then we will discuss the ways powerful and powerless individuals rely on experiential information using the ease of retrieval paradigm (Schwarz, Bless, Strack, Klumpp, Rittenauer-Schatka, & Simons, 1991).

Declarative vs. Experiential Information

Broadly speaking human judgments can draw on two distinct sources of information: declarative information that pertains to features of a target, and experiences or feelings that occur during the judgmental process. At present a considerable body of research demonstrates that a full account of human judgments requires a consideration of both sources of information (e.g., Bless & Forgas, 2000; Schwarz, 1998).

This becomes particularly evident by looking at the feeling of difficulty or ease that emerges from the retrieval of mental contents (e.g., Schwarz et al., 1991). When retrieving information about an object is easy individuals tend to perceive the target object in line with the implications that derive from their thought contents. However, when retrieving information is difficult individuals interpret this experience as a limitation or restriction, and their judgments tend to contradict the content of their thoughts. For example, a person may conclude from the difficulty in thinking of many reasons to accept

an offer for a new post that it is better to stay in the current job. Ease of retrieval thus provides experiential information that qualifies and may even reverse the implications of declarative thought contents (e.g., in spite of having good reasons to aim for the new post the person may conclude 'If it's so difficult to think of many reasons to accept the new post it may not be worth accepting it'; see Schwarz, 1998).

Tversky and Kahneman (1973) were the first to point out the role of ease of retrieval experiences in the judgmental domain. A new interest was sparked, however, with the creation of a research design that allows a separation of the effects of experienced ease and declarative thought contents. Schwarz and colleagues (1991) asked participants to list either a few (an easy task) or many (a difficult task) past instances indicative of assertiveness. Participants subsequently rated themselves as more assertive when they had experienced ease rather than difficulty in the retrieval process. Since judgments based on the mere declarative content are likely to result in the opposite pattern, with higher ratings of assertiveness after retrieving many rather than few behavioral examples, it was concluded that participants' judgments were guided by experiential information.

The ease of retrieval paradigm has the unique feature of being able to elicit experiential information that is at odds with declarative thought contents. It has been used in a variety of domains to separate the relative contribution of experience-based- and content-based information, including in social perception (Aarts & Dijksterhuis, 1999; Raghubir & Menon, 2005), attitudes (Menon & Raghubir, 2003; Wänke & Bless, 2000; Wänke, Bohner & Jurkowitsch, 1997), and autobiographic knowledge (Winkielman & Schwarz, 2001; see also Winkielman, Schwarz, & Bellig, 1998). In the present article we focus on ease of retrieval with the purpose of separating the relative contribution of experience-based- and content-based information in the judgments of powerful and powerless individuals.

Power and Ease of Retrieval

Power refers to the ability to control others' outcomes (Thibaut & Kelley, 1959) and to influence others at will (Cartwright, 1947). Powerful individuals have greater predictability and control and are less dependent on external circumstances (Hollander, 1958; Lewin, 1947). According to the Situated Focus Theory of Power (Guinote, in press), powerful individuals are free to process information more selectively in line with the factors that drive cognition in the situation (e.g., expectancies, goals, affordances, bodily sensations). Conversely, powerless individuals are attentive to multiple sources of information and interpret information beyond its face value in order to increase predictability and control (Fiske & Dépret, 1996; Goodwin, Gubin, Fiske, & Yzerbyt, 2000; Guinote, 2004; Guinote, 2007-a; Guinote, Brown, & Fiske, 2006; Keltner et al., 2003). For instance, studies on persuasion show that control deprived individuals turn to the message content for additional information (Pittman, 1993; see also Guinote et al., 2006). In contrast, elevated power increases the tendency to focus on single cues (Guinote, in press), and reduces the tendency to take additional perspectives into account (e.g, Galinsky, Magee, & Inesi, & Gruenfeld, 2006; Mannix & Neale, 1993).

Subjective experiences, such as the ease of retrieval, are primary cues that can drive the online-construction of judgments both automatically and deliberately (see Kahneman, 2003; Kahneman & Frederick, 2002; Menon & Raghubir, 2003; Strack, 1992; Whittelsea & Williams, 1998; see also Pam, Cohen, Pracejus & Hughes, 2001). The greater tendency of powerful individuals to rely on the primary factors that drive cognition and ignore additional information should, therefore, promote experience-based responses. In contrast, the greater tendency of powerless individuals to engage in interpretative reasoning and go beyond accessible impressions should decrease the impact of subjective experiences and strengthen content-based processing. One would, therefore,

expect powerful individuals to rely on the ease of retrieval and powerless individuals to rely on activated declarative contents.

Indirect support for this claim is offered by research suggesting that powerful individuals respond more in line with their feelings (e.g., Guinote, 2007-c; Hecht & LaFrance, 1998). For example, in a study that involved eating appetizing and non-appetizing food, powerful participants ate more or less food as a function of their gustatory experiences while eating (Guinote, 2007-c). In contrast, the amount of food eaten by powerless individuals was unrelated to their experiences. Guinote (2007-a) also found that powerful individuals were more prone to magnify the expression of unwanted thoughts after suppressing these thoughts compared to powerless individuals. This increased rebound of unwanted thoughts after suppression indicates that powerful individuals, more than powerless individuals, used the experienced difficulties in suppressing unwanted thoughts as a source of information (see Förster & Liberman, 2001; Förster & Liberman, 2004).

Although these studies are suggestive, the role of subjective experiences remains largely unexplored. In particular, prior research did not separate experiential information from declarative thought contents. For example, ease of processing stereotype-consistent information, rather than the content of this information per se, could contribute to greater stereotyping in the social perception of powerful and powerless individuals. Consequently, experiential and declarative information remain confounded in most research on power. Moreover, prior studies focused on domains that do not have strong declarative components, such as smiling in interaction contexts (Hecht & LaFrance, 1998) or eating (Guinote, 2007-c). It is possible that the greater tendency of powerful individuals to rely on experiences does not hold when one can resort to declarative information. In the present article we hypothesize that power induces reliance on

subjective experiences also in a context where responses can be based on declarative thought contents. This perspective implies that the judgments of powerful individuals are malleable and subject to influences of momentary experiences.

Subjective Experiences and Temporal Stability

Although the present research emphasizes momentary influences on attitudes and the greater variability in judgments that results from the experience of power (see also Guinote, 2004; Guinote, Judd, & Brauer, 2002), we think that this does not preclude temporal stability of attitudes. Under certain circumstances powerful individuals may rely on evaluative judgments previously stored in memory (see Judd & Brauer, 1995), in particular when previously formed attitudes are accessible at the time of judgment (Bohner & Wänke, 2002). This would reconcile the present perspective with past research showing that powerful individuals can respond more in line with stable personal tendencies or prior knowledge structures (e.g., Chen, Lee-Chai, & Bargh, 2001; Fiske & Dépret, 1996). The present article explores the possibility that powerful individuals' past attitude-judgments, construed on the basis of experiential information, can affect judgments at later points in time. We reasoned that when individuals make judgments based on ease of retrieval these judgments are stored in memory, perhaps together with information on retrieval experiences (see Barsalou, 1999). Subsequent attitudinal judgments can be based in part on these sources of information, thereby contributing to some temporal stability. One goal of the present research is to provide, as far as we know for the first time, evidence that reliance on ease of retrieval can have long-term effects. We examine this effect in the context of power, illustrating how momentary influences can transpire over time and promote some stability in the judgments of powerful individuals.

The Present Research

The primary goal of the present article is to demonstrate that powerful individuals rely on experiential information, whereas powerless individuals draw their judgments on declarative thought content. This hypothesis was tested in five studies using the ease of retrieval paradigm (Schwarz et al., 1991). These studies examined reliance on ease of retrieval experiences in domains that have been associated with judgmental stability and the expression of core values and attitudes in powerful individuals, such as stereotyping and self-related judgments. Power was operationalized through priming, trait dominance, and actual professional roles (i.e., managers vs. subordinates). We also examined whether the effects of power on reliance on ease of retrieval can be explained by other factors such as mood, quality of the retrieved information, number of counter-attitudinal thoughts, or differences in the subjective experience itself. In addition, Study 4 used a longitudinal design to test the prediction that reliance on the ease of retrieval can have long-term effects.

Study 1a: Evaluative Judgments in Unfamiliar Domains

The present study tests the hypothesis that power induces reliance on the ease of retrieval in the realm of attitude judgments. Power was primed by asking participants to report a past event in which they had power over someone, or someone had power over them (Galinsky, Gruenfeld, & Magee, 2003). Participants were then provided with a news report that dealt with plans of NASA to send humans to Mars. In the following we asked participants to generate either a small number or a large number of arguments in favor of sending humans to Mars.

If powerful individuals rely more on subjective experiences they should use the ease or difficulty in generating arguments as a source of information to guide their attitude judgments. That is, powerful individuals should be more in favor of sending humans to Mars after generating few as opposed to many arguments. Conversely, if powerless

individuals have a more complex processing orientation they should be less affected by the ease of retrieval and focus more on the content of their thoughts. Thus, the attitudes of powerless individuals should be equally favorable after generating few or many arguments, or be even more positive after generating many compared to few arguments.[1]

Method

Participants and Design

One hundred and thirty-six students (78 females and 57 males)[2] from the University of Kent participated for entry in a lottery. Up to five participants took part in one session. They were randomly assigned to the conditions of a 2 (power: powerful vs. powerless) x 2 (number of arguments: few vs. many arguments) between-subjects factorial design.

Procedure and Materials

Participants were informed that they would work on two independent studies about situational perception and decision-making. They received a booklet that consisted of two separate questionnaires. The first questionnaire contained the power manipulation and a measure of mood. Following Galinsky et al. (2003) participants were asked to provide a vivid written report of either a past event where they had power over another individual, or someone else had power over them. Participants were given an answer-sheet with 35 lines to complete this task. Following the manipulation of power a single item assessed participants' mood on a scale ranging from *very sad* (1) to *very happy* (10).[3] The second questionnaire included a manipulation of ease of retrieval. Participants were asked to read the following scenario extracted from a news report that dealt with the endeavor of sending humans to Mars:

> On January 14, 2004, a new course of human exploration of the solar system was charted. A "Commission on Implementation of Space Exploration" was created. The Commission will generate a report for NASA this summer, and it is

> expected that the endeavor of sending humans to Mars will play a prominent role in this report.

After reading this background information participants were asked to generate either two arguments, or six arguments in favor of this enterprise. The ease of retrieval paradigm rests on the assumption that listing only few arguments is perceived as easy, whereas listing many arguments is perceived as difficult (Schwarz et al., 1991). Thus, a pretest was carried out where we asked participants (N = 10) to generate a free number of arguments in favor of sending humans to Mars (M = 3.60, SD = 0.89). Based on this pretest we concluded that listing two arguments is perceived as easy, whereas generating six arguments is perceived as difficult (see Ruder & Bless, 2003). Participants in the main study received an answer-sheet that provided three lines for each argument. There were no time restrictions and participants completed this task at their own pace. Following the generation of arguments participants rated their attitudes towards sending humans to Mars on a 10-point scale ranging from *negative* (1) to *positive* (10). They also indicated how much they would welcome such an enterprise on a scale ranging from *not at all* (1) to *very much* (10). After completion of the booklet participants were thanked and debriefed.

Results and Discussion

Manipulation Checks

After the written report of a past instance participants indicated on a 9-point scale (ranging from *not at all* to *very much*) how much they felt in charge in the situation they described in their essay. An independent-samples t-test revealed that participants in the powerful condition felt more in charge of the situation than participants in the powerless condition (Ms = 7.34 vs. 2.61), $t(134) = -20.27$, $p < .001$. This result indicates that the manipulation was successful in inducing instances where participants felt powerful or powerless.

Participants also rated how difficult it was to generate the requested number of arguments on a scale ranging from *not at all difficult* (1) to *very difficult* (10). A 2 (power: powerful vs. powerless) x 2 (number of arguments: few vs. many arguments) between subjects analysis of variance was conducted on this measure. As expected, generating two arguments was perceived easier than generating six arguments (*M*s= 4.14 vs. 6.44), $F(1, 132) = 26.91$, $p < .001$, which demonstrates the effectiveness of the ease of retrieval manipulation. No other effects were significant, ps $\geq .16$. Ease of retrieval experiences were, therefore, not affected by our priming manipulation of power.

Attitudes

The two attitude measures designed to assess participants' attitudes towards sending humans to Mars were highly correlated ($\alpha = .95$, $M = 5.76$, $SD = 2.51$) and therefore collapsed into a single attitude score. This score was subjected to a 2 (power: powerful vs. powerless) x 2 (number of arguments: two vs. six arguments) between subjects analysis of variance. This analysis yielded a main effect of number of arguments, indicating a more favorable opinion after generating two, as opposed to six arguments (*M*s= 6.34 vs. 5.15), $F(1, 132) = 8.91$, $p = .003$. This result points out the importance of ease of retrieval experiences, which affected participants' judgments more than did the content of the information they retrieved. When generating arguments was easy, participants had a more favorable attitude compared to when generating arguments was difficult. Of special importance, this main effect was qualified by a significant interaction between power and number of arguments, $F(1, 132) = 4.06$, $p = .046$. As expected, participants in the powerful condition were more affected by ease of retrieval compared to participants in the powerless condition (Table 1). Powerful participants were more in favor of sending humans to Mars after having generated few compared to many arguments (*M*s = 4.88 vs. 6.97), $F(1,132) = 11.47$, $p < .001$. In contrast, participants in

the powerless condition were unaffected by the ease or difficulty in generating arguments (*M*s = 5.77 vs. 5.36), *F*< 1. The main effect of power was not significant, *F*<1.

Mood

An independent-samples *t*-test indicated that power did not affect participants' mood, (*M*s= 6.47 vs. 6.42), *t*(135) = -.09, *p* = .931. The impact of power on ease of retrieval was, therefore, not mediated by differences in mood.

Taken together these results provide initial evidence for the hypothesis that power promotes reliance on the ease of retrieval. The attitudes of participants primed with power seemed to be affected by the experience of ease or difficulty in retrieving thought contents. No such effect was evident for participants primed with powerlessness.

Still, although the results seem to indicate that ease of retrieval was the key factor affecting powerful individuals' attitudes, the results could be explained by differences in the content of the information retrieved rather than the use of experiential information. In particular, powerful individuals, unlike powerless individuals, may have generated more persuasive arguments when asked to generate few compared to many arguments, and this could have affected their responses. The original paradigm developed by Schwarz and colleagues does not rule out this possibility (see Ruder & Bless, 2003; Wänke, Bless, & Biller, 1996). We conducted a subsequent study to address this issue.

Study 1b: The Role of Persuasiveness

The purpose of the present study was to rule out the possibility that differences in the persuasiveness of the retrieved information account for the effects observed in Study 1a. To this end a yoked design was employed (see Ruder & Bless, 2003; Wänke et al., 1996). The arguments generated in Study 1a were presented to another sample of participants. Specifically, each 'writer' of Study 1a was matched with one 'reader' of the same sex in Study 1b. After reading the arguments of a writer, participants expressed

their own attitudes regarding the dispatch of humans to Mars. They also evaluated the quality of the arguments.

Since readers have only access to the content and not to the subjective experiences associated with the generation of the arguments, their attitudes should reflect the arguments' persuasive content. Thus, if power-primed writers relied on the experienced ease of generating arguments only writers, but not readers, should have more favorable attitudes in the few- compared to the many-arguments condition. Conversely, if powerlessness-primed writers based their judgments on the content of the retrieved information their attitudes should be analogous to their corresponding readers' attitudes.

Method

Participants and Design

One hundred and thirty-six students from the University of Kent (79 females and 58 males) participated on a voluntary basis. Participants were presented with the arguments of a same-sex writer of Study 1a. As a result this study used a 2 (power: powerful vs. powerless) x 2 (number of arguments: few vs. many arguments) x 2 (source: writer vs. reader) mixed factor yoked design, with power and number of arguments as between-subjects factors.

Procedure and Materials

Participants took part in groups of up to five participants. First they read the same background information presented to the writers of Study 1a. Then each participant was presented with the arguments generated by one writer of Study 1a. Participants were instructed to read the arguments carefully in order to provide an objective interpretation of this information. After having read the arguments participants completed the same attitude measures as participants in Study 1a. Finally, participants rated the quality and the persuasiveness of the total number of arguments generated by each participant on two

10-point scales ranging from 1 (*not at all persuasive; very bad*) to 10 (*very persuasive; very good*). Participants were then thanked and debriefed.

Results and Discussion

The readers' scores on the two attitude measures were averaged into a single index (α = .89, M = 6.31, SD = 2.19). To test the hypothesis that readers' attitudes differ from the attitudes of writers primed with power but not from the attitudes of writers primed with powerlessness, we submitted this score to a 2 (power: powerful vs. powerless) x 2 (number of arguments: few vs. many arguments) x 2 (source: writer vs. reader) mixed analysis of variance. Writers versus readers were treated as a within-subjects factor. The analysis yielded a main effect of source, $F(1, 132) = 4.20$, $p = .043$, indicating that readers had a more favorable attitude towards sending humans to Mars than writers (Ms = 6.31 vs. 5.75). Readers' attitudes may have been affected by the fact that another student (i.e. the corresponding writer) generated unequivocally supportive arguments in favor of sending humans to Mars. As expected, the interaction between source and number of arguments was also significant, $F(1, 132) = 5.33$, $p = .023$. Participants in Study 1a reported a more favorable attitude after generating a few rather than many arguments (Ms = 6.34 vs. 5.15), $F(1,132) = 8.91$, $p = .003$, however, no such difference was evident for the readers (Ms = 6.30 vs. 6.32), $F < 1$ (Table 1). This relationship was further qualified by a marginally significant interaction between power, number of arguments and source, $F(1, 132) = 2.87$, $p = .093$.[4] While powerful writers had reported a more favorable attitude towards sending humans to Mars after generating few as opposed to many arguments (Ms = 6.97 vs. 4.88), $F(1, 132) = 11.47$, $p < .001$, this difference was not evident for their readers (Ms = 6.27 vs. 6.38), $F < 1$. This pattern is reflected in a significant interaction between source and number of arguments for powerful writers and their readers, $F(1, 132) = 7.34$, $p = .008$. In contrast, the attitudes of powerless writers and their readers did not vary as a function of

the number of arguments retrieved, ($Ms_{writers}$ = 5.77 vs. 5.36; $Ms_{readers}$ = 6.32 vs. 6.26), Fs < 1. These results support the hypothesis that powerful writers based their attitudes on the ease of retrieval, whereas readers and powerless writers based their attitudes on the content of the information described. No other reliable effects emerged, F<1.

Argument Persuasiveness

We averaged readers' ratings of argument-persuasiveness and quality (α = .87, M = 5.51, SD = 1.94) and submitted this score to a 2 (power: powerful vs. powerless) x 2 (number of arguments: few vs. many arguments) between subjects analysis of variance. The analysis revealed a main effect of power, $F(1, 132) = 5.17$, $p = 025$. The arguments of powerful writers were rated higher in persuasiveness than the arguments of powerless writers (Ms = 5.56 vs. 4.82). However, this effect did not vary as a function of the number of arguments (F < 1), providing additional support for the hypothesis that powerful individuals were primarily influenced by ease of retrieval experiences rather than by differences in the persuasiveness of the retrieved information. Finally, there was also no reliable effect of number of arguments on perceived persuasiveness, p = .164. Overall, listing many arguments was not more persuasive than listing few arguments. This result is consistent with our interpretation that powerless individuals, who did not vary their attitudes as a function of the number of arguments in Study 1a, based their judgments on the content of the information retrieved.

Taken together the results of Study 1b are consistent with our hypotheses. Readers had only access to the informational content of the arguments but not to the experienced ease of retrieval. Since the attitudes of readers, as well as their ratings of persuasiveness, did not differ as a function of the number of arguments, we can conclude that persuasiveness of the arguments generated by powerful and powerless participants in Study 1a could not account for the results obtained. These results lend support to the

hypothesis that powerful writers were affected by the ease of retrieval, whereas powerless writers drew on the content of the retrieved information.

Taken together the results of Study 1a and 1b support the hypothesis that power promotes reliance on ease of retrieval in the realm of attitude judgments. A subsequent study was designed with the aim of extending these findings into a more familiar and involving domain: judgments related to the Self.

Study 2: Self-related Judgments

Past research has argued that power magnifies the expression of self-related attributes (Chen et al., 2001; Smith & Trope, 2006). For example, power increases cooperative behavior for communal oriented participants and selfish behavior for exchange oriented participants (Chen et al., 2001). From this perspective one would predict that judgments and behaviors related to the Self are more stable and less subject to momentary influences for powerful compared to powerless individuals. Yet, if self-related judgments are construed in the moment on the basis of subjective experiences, and powerful individuals respond more in line with the factors that drive cognition in the situation, then their self-related judgments might actually be more malleable than previously assumed. The present study tests this hypothesis.

One further contribution of the present study is to examine the ecological validity of our predictions using a sample of managers and subordinates. There is surprisingly little evidence that effects obtained in the laboratory coincide with effects of power that take place in real-life. To date socio-cognitive research on power has used only undergraduate students (for an exception see Guinote, 2007-d), which might be problematic considering that students have little experience with enacting powerful roles.

In the present study managers and subordinates were asked to retrieve recent episodic instances about their lives before we assessed their self-perception. Specifically,

they were asked to list either many or few episodic instances that had occurred during their leisure time in the two weeks preceding the assessment. Following this task participants were asked to indicate how satisfied they were with the amount of leisure time at their disposal, as well as with their general work-life balance. We expected managers to be more satisfied with their leisure time after generating few (a task that is perceived as easy) compared to many (a task that is perceived as difficult) past instances of leisure time. Subordinates on the other hand should be unaffected by the ease of retrieval and base their judgments on the content of the retrieved information instead.

Method

Participants and Design

Eighty-three full-time employees (44 managers and 39 subordinates) were approached at an international business airport. Managers (9 females and 35 males) worked in a variety of businesses (e.g., IT, Banking, Automotive). Nineteen managers (43.2%) occupied middle management and seventeen (38.7%) top management positions.[5] Importantly, all managers had subordinates under their supervision. Twenty-three percent had 5 or fewer subordinates, 43% had 6 to 20 subordinates, and 29% were in charge of more than 20 subordinates. The managers were aged between 21 and 60 years (M = 40.14, SD = 9.08). Care was taken to obtain a comparable sample of employees in subordinate positions (13 females and 26 males) working under the supervision of one or more managers. Most subordinates (87.2%) were office-workers in clerical positions (e.g., Sales Executives, Advisors, Software Programmers). Fourteen subordinates (43.6%) occupied senior positions and eleven subordinates (28.2%) occupied junior positions. The subordinates were between 20 and 53 years old (M = 32.74, SD = 8.31) and none of them had personnel responsibilities.

Participants were run individually and were randomly assigned to one of the two ease of retrieval conditions, thus creating a 2 (power: managers vs. subordinates) x 2 (number of instances: few vs. many) factorial between subjects design.

Procedure and Materials

Participants were informed that the study dealt with the perception of work-life balance. They received a short questionnaire that consisted of two pages. On the first page participants were asked to indicate their current function and job-level. Managers also indicated the number of subordinates working under their supervision. This was followed by the experimental manipulation of ease of retrieval. Ease of retrieval was manipulated by asking participants to indicate two (easy) or ten (difficult) activities or events that they had experienced during the last two weeks in their leisure time, together with the time they spent on each activity. The number of instances in each condition was based on a pre-test conducted with ten full-time employees, who were asked to list as many episodes of leisure time as they could think of (M = 7.40; SD = 3.13). The definition of leisure time was included in the instructions, which read as follows:

> Balancing professional and private life plays a prominent role in well-being and in our general quality of life. It is evident that work-life balance involves not only factors occurring at work, but also all activities/events outside work. Time outside employment or education can be divided into necessary time (e.g. personal care activities, sleeping, eating), committed time (pursuing social or other responsibilities – housework and domestic activities, child care, shopping, voluntary work, social commitments) and leisure time (time for yourself, not falling into the other categories). In the following please list two (ten) distinct situations or events that you experienced within the last two weeks in your leisure time. This means time for 'yourself' outside work that was not committed to any responsibilities. Please describe the situation or event briefly. In the right column please indicate how much time the situation or event took approximately (in hours).

Participants completed the questionnaire at their own pace. Following the manipulation of ease of retrieval they indicated on three 9-point scales how much they were happy with the amount of leisure time they had, whether their leisure time allowed

them to self-realize, and how much they were content with their current work-life balance. Participants' mood was assessed using four 7-point scales ranging from –3 (*very bad; very sad; very discontent; very tense)* to 3 *(very good; very happy*, *very content; very relaxed).* Finally, participants also indicated their gender, age, weekly hours spent at work, and how many days they had been on holidays during the two weeks prior to completion of the questionnaire. On completion participants were thanked and debriefed.

Results and Discussion

Manipulation Check

Participants indicated how easy it was for them to recall the leisure activities on a 9-point scale. This measure of experienced ease was subjected to a 2 (power: managers vs. subordinates) x 2 (number of instances: few vs. many instances) between subjects analysis of variance. The results indicated that generating few instances was easier than generating many instances (*M*s = 5.89 vs. 4.33), $F(1,78) = 8.24$, $p = .005$, confirming the effectiveness of the experimental manipulation. No other reliable effect emerged (*F*s<1), which suggests that managers and subordinates did not differ in the experienced ease of retrieval within the experimental conditions.

Leisure Time Satisfaction

First, we examined whether leisure time, indexed by the total number of hours participants spent in the activities reported, varied as a function of power (managers vs. subordinates) and number of instances recalled (few vs. many). Participants retrieved more hours of leisure time when being asked to indicate many as opposed to few past instances (*M*s = 34.82 vs. 13.65), $F(1,79) = 19.93$, $p < .001$. No other effects emerged (*F*s<1), which indicates that managers and subordinates did not differ in terms of actual amount of leisure time reported.[6]

We then collapsed the three measures of leisure time satisfaction into a single index (α = .84, M = 4.41, SD = 1.87), and submitted this score to a 2 (power: managers vs. subordinates) x 2 (number of instances: few vs. many) between subjects analysis of variance. The analysis yielded the expected significant interaction between position and number of recalled instances, $F(1, 79) = 7.48$, $p = .008$. As shown in Table 2, managers reported greater satisfaction after indicating a few rather than many leisure time activities (Ms = 4.95 vs. 3.82), $F(1, 79) = 4.19$, $p = .044$. Subordinates showed the opposite tendency, as implied by the marginally significant trend to be more satisfied after having listed many as opposed to few activities (Ms = 3.85 vs. 4.92), $F(1, 79) = 3.34$, $p = .071$. No other reliable effect emerged, Fs<1. In line with the hypothesis these results suggest that managers, but not subordinates, were guided by the experienced ease of retrieval.

Mood

We first collapsed the four mood-items into a single score (α = .86, M = .71, SD = 1.17), which we then subjected to a 2 (power: managers vs. subordinates) x 2 (number of instances: few vs. many instances) between subjects analysis of variance. No reliable effects emerged, ps $\geq .196$. This suggests that mood does not underlie the effects reported in the present study.

Taken together these findings contribute to the generality of our claim that power induces reliance on experiential information. We found that managers, who occupied naturally occurring powerful positions, relied on the experienced ease associated with the retrieval of mental contents. In contrast, a comparable group of employees in subordinate positions was unaffected by this experiential information. These results are noteworthy as very little research has examined the effects of power in individuals who occupy real-life powerful and powerless positions.

Overall these findings point out that power increases reliance on subjective experiences not only in unfamiliar attitude-judgments (Study 1a) but also in familiar judgments related to the Self (Study 2). The next study examines judgments related to social targets.

Study 3: Social Perception

Following the same logic, we aimed at extending our findings into social perception and stereotyping, a topic that has traditionally attracted a great deal of research on power (e.g., Chen et al., 2001; Chen, Ybarra, & Kiefer, 2004; Dépret & Fiske, 1999; Fiske, 1993; Goodwin et al., 2000; Goodwin, Operario, & Fiske, 1998; Guinote et al., 2002; Overbeck & Park, 2001; Overbeck & Park, 2006; Richeson & Ambady, 2002; Stevens & Fiske, 2000; Vescio, Snyder, & Butz, 2003; Vescio, Gervais, Snyder & Hoover, 2005). It is widely assumed that power promotes stereotyping and reliance on prior knowledge (see Fiske, 1993; Fiske & Dépret, 1996; Goodwin et al., 2000; Keltner, et al. 2003; Keltner & Robinson, 1997; Rodriguez-Bailon, Moya, & Yzerbyt, 2000). For example, in an extensive line of research Fiske and her colleagues (Fiske, 1993; Fiske & Dépret, 1996; Goodwin et al., 2000) found that powerful individuals attend more to stereotype consistent information of social targets compared to stereotype inconsistent information, whereas powerless individuals attend also to stereotype inconsistent information.

However, recent findings indicate that powerful individuals are capable of individuating their subordinates. Overbeck and Park (2001) found that powerful individuals, compared to powerless individuals, better remembered individuating information of their interaction partners that was relevant for the task at hand. Similarly, Vescio and her colleagues (2003) found that powerful individuals only used stereotypes about their subordinates when stereotypes were relevant to the context (e.g., women in

masculine domains) and informed their social influence strategies. Powerful individuals, therefore, seem to have more malleable social perceptions than previously considered. They may individuate others depending on the relevance of individuating information for the goals that they pursue (Overbeck & Park, 2006; see also Guinote, 2007-e) and their social influence strategies (Vescio et al., 2003).

This previous research has examined contexts in which social perception was instrumental to the exercise of power. One question that arises is whether the social judgments of powerful individuals can also be affected by momentary influences that are unrelated to the exercise of power. In the present study we examine how momentary influences that derive from subjective experiences affect the social perception of powerful and powerless individuals. We hypothesized that powerful individuals will rely more on stereotypes when experiential information is consistent with stereotypes. However, they will rely *less* on stereotypes when subjective experiences contradict stereotypes.

We used gender groups as the target categories. Gender is a basic social category, whose representation is well-established and developed at a very young age (e.g., Powlishta, 1995; Yee & Brown, 1994; see also Jost & Kay, 2005). Our claim that powerful individuals rely more on subjective experiences is particularly supported if we can show that these effects occur even for well-established stereotypes.

Participants were asked to generate many or few characteristics on which they felt men and women are, on average, different (see Dijksterhuis et al., 1999). When it was easy to retrieve differences between men and women we expected powerful participants, more than powerless participants, to perceive the two gender groups in stereotypic ways. However, when it was difficult to retrieve differences between men and women we expected powerful participants to perceive the gender groups in less stereotypic ways

compared to powerless participants. In the present study power was operationalized using a priming manipulation, similarly to Study 1a.

Method

Participants and Design

One-hundred and thirty-two students (84 females and 48 males) from the University of Kent participated in this study. A draw with four prizes was offered in return for participation. Participants were randomly assigned to the 2 (power: powerful vs. powerless) x 2 (number of differences: few vs. many) experimental conditions.

Procedure and Materials

Up to six participants took part in one session. Upon arrival participants were informed that they would participate in three separate studies, the first study allegedly being concerned with situational perception and the remaining two studies investigating group perception. Separate questionnaires numbered from one to three, as well as coversheets in differing color, aimed at bolstering this cover-story. Participants were instructed to work through the questionnaires in the order presented to them. The power-manipulation was included in the first questionnaire and was the same as in Study 1a. This was followed by the manipulation of ease of retrieval. Participants were asked to list either two or twelve attributes on which they thought women and men are, on average, different. This manipulation was adopted from Dijksterhuis et al. (1999). The instruction read as follows:

> In this study we are interested in your perception of characteristics that members of different groups possess. In particular, we are interested in gender groups and attributes that differentiate men and women. We would like you to think about differences between men and women. In the space below please list two (twelve) traits/personality-characteristics on which you think women and men are, on average, different.

The final questionnaire assessed the dependent variables. A first measure of typicality asked participants to indicate how well twelve gender-typed attributes describe

men and women on a scale ranging from *not at all* (1) to *very well* (9). Attributes were chosen based on previous research (Bem, 1976; Spence, Helmreich & Holohan, 1979; Williams & Best, 1982). Masculine attributes were *courageous*, *assertive*, *self-confident*, *rude, boastful,* and *autocratic*; female attributes were *warm, sympathetic, gentle, nagging, whiny,* and *fussy*. Participants indicated how well each of the attributes described the two target-groups. They also estimated the percentage of women and men possessing each of the twelve attributes (see Park & Judd, 1990). Finally, mood was measured using the same scales employed in Study 2.

Results and Discussion

Manipulation Checks

Participants in the high-power condition reported that they felt more in charge (*M*s = 6.98 vs. 2.70), $t(129) = 15.09$, $p < .001$, indicating that the manipulation of power was effective. Participants also indicated their experienced ease or difficulty in generating the requested number of attributes on a 9-point scale. Scores were subjected to a 2 (power: powerful vs. powerless) x 2 (number of traits: few vs. many traits) between subjects analysis of variance. This analysis indicated that generating few differences was perceived easier than generating many differences between men and women (*M*s = 4.84 vs. 3.30), $F(1, 128) = 14.98$, $p < .001$. No other effects were significant, *F*s<1.

Stereotyping

Stereotypicality. We computed an index of stereotypicality by subtracting ratings given on counter-stereotypic traits from ratings given on stereotypic traits for each target group separately. We then submitted this index to a 2 (power: powerful vs. powerless) x 2 (number-of-traits: few vs. many traits) x 2 (participant gender: male vs. female) x 2 (target gender: men vs. women) mixed analysis of variance with target as within subjects factor. The analysis revealed the expected significant interaction between power and number of

stereotypic traits generated, $F(1, 124) = 8.21$, $p = .005$. As shown in Table 3, powerful participants stereotyped both target groups more after having retrieved few as opposed to many stereotypic traits (*Ms* = 2.09 vs. 1.62), $F(1, 124) = 4.43$, $p = .037$. Conversely, powerless participants tended to stereotype more after retrieving many rather than few stereotypic traits (*M*s = 1.44 vs. 1.91), $F(1, 124) = 3.81$, $p = .053$. Furthermore, there was a main effect of target gender such that men were perceived in more stereotypic ways than women (*M*s = 1.95 vs. 1.58), $F(1, 124) = 5.87$, $p = .017$. A marginal significant interaction between power, number of arguments, and target gender suggests that the effects of power on ease of retrieval were somewhat stronger for male compared to female gender stereotypes, $F(1, 124) = 3.58$, $p = .061$.[7] Finally, an interaction between power and participant gender indicates that males had more stereotypic perceptions than females when primed with powerlessness (*M*s = 2.14 vs. 1.46), but not when primed with power (*M*s = 1.73 vs. 1.93), $F(1, 124) = 6.22$, $p = .014$. No other effects were significant, *p*s ≥ .173. In particular powerful participants did not rely more on stereotypes than powerless participants, $F < 1$.

Percentage-Estimates. The percentage estimates given on counter-stereotypic traits were subtracted from the percentage estimates given on stereotypic traits for each target group separately. We then submitted this index to a 2 (power: powerful vs. powerless) x 2 (number of traits: few vs. many traits) x 2 (participant gender: male vs. female) x 2 (target gender: men vs. women) mixed analysis of variance with target as within subjects factor. The results yielded the predicted interaction between power and number of stereotypic attributes retrieved, $F(1, 124) = 6.22$, $p = .014$. As can be seen in Table 3, powerful participants tended to stereotype more after having retrieved few as opposed to many stereotypic traits (*M*s = 25.83% vs. 18.96%), $F(1, 124) = 3.54$, $p = .062$, whereas the opposite tendency was evident for powerless participants (*Ms* = 16.48% vs.

21.04%), $F(1, 124) = 2.73$, p = .101. Furthermore, there was an interaction between number of arguments and target gender, $F(1, 124) = 3.58$, $p = .061$; as well as an interaction between power and participant gender, indicating that male participants stereotyped more than female participants when primed with powerlessness (*M*s = 22.74% vs. 19.01%), but not when primed with power (*M*s = 19.40% vs. 21.88%), $F(1, 124) = 6.22$, $p = .014$.[7] No other effects were significant, *p*s ≥ .151. In particular, power did not increase stereotyping independent of ease of retrieval experiences, $F < 1$.

Mood. Answers to the four items were collapsed into a single index ($\alpha = .79$, $M = .65$, $SD = 1.20$) and entered into a 2 (power: powerful vs. powerless) x 2 (number of attributes: few vs. many attributes) between subjects analysis of variance, which revealed no significant effects, *F*s<1. This suggests that mood does not underlie the effects of power reported in the present study.

Taken together the results of the present study indicate that power promoted stereotyping only when generating stereotypic information was easy. When retrieving stereotypic information was difficult power lessened stereotypic gender-perceptions. No support was found for an overall link between power and stereotyping. In line with the findings obtained for attitudes and self-related judgments, the present data suggest that also the social perception of powerful individuals is highly flexible and depends on experiential information that accompanies judgmental processes.

Study 3 extended our previous studies to judgments made in relation to social targets. We conducted a final study to demonstrate that ease of retrieval experiences can have more enduring effects, thereby contributing to some attitudinal stability.

Study 4: Ease of Retrieval and Attitude Stability

Past research has emphasized the greater idiosyncrasy (Chen et al., 2001) and stability of powerful individuals (e.g., Anderson & Berdahl, 2002). The present research

emphasizes the greater context-dependence and flexibility that derives from the experience of power. Those two perspectives are, however, not necessarily contradictory. Some contexts may habitually trigger the emergence of an individual's more chronic personal tendencies (e.g., Chen et al., 2001), and be conducive of some stability in judgments over time.

Moreover, evaluative judgments can be stored in memory and retrieved later in subsequent evaluations related to the same target (Judd & Brauer, 1995; see also Schwarz & Bohner, 2001; Wilson & Hodges, 1992). Likewise experiential information may be stored in memory (see Barsalou, 1999). We hypothesized, therefore, that these sources of information stored in memory may contribute to some temporal stability of the initial effects of ease of retrieval. To test this hypothesis participants made evaluative judgments twice: immediately after a manipulation of ease of retrieval, and after one week. We predicted that the effects of our initial manipulation of ease of retrieval would be still evident after one week.

In the present study the target of judgments was participants' attitudes towards a controversial topic: the introduction of biometric ID cards. We asked participants to indicate their attitudes towards the introduction of new ID cards immediately after the manipulation of ease of retrieval and one week later. The present study used trait dominance as a proxy for power (see Anderson & Berdahl, 2002; Goodwin et al., 1998; Operario & Fiske, 2001). Since our previous studies did not include a control group this approach has the advantage to allow for a test of a linear relationship between power and reliance on the ease of retrieval. Similarly to the previous studies we assessed participants' mood in order to examine whether the effects of dominance are related to differences in mood.

The present study also tested an additional alternative explanation for the results obtained in the previous studies. The differences in the judgments of powerful and powerless individuals may derive from differences in the number of counter-arguments generated by these participants during the retrieval process. To rule out this alternative explanation participants were asked to list all thoughts they had while generating arguments (see Greenwald, 1968; Maheswaran & Chaiken, 1991).

Method

Participants and Design

One hundred and twenty-eight students (86 female and 42 male) from the University of Kent participated for course credits. The study measured trait dominance and assigned participants randomly to the ease of retrieval conditions (number of arguments: few vs. many arguments). One week later participants completed the same dependent measures as in Time 1 (T1).

Procedure and Materials

Trait dominance scores were obtained from a mass-test at the beginning of the academic year, using the Revised Interpersonal Adjective Scale (IAS-R; Wiggins, Trapnell, & Phillips, 1988). The scale consists of eight adjectives (e.g., *firm, assertive*), which were embedded in filler-items. Participants rated how accurately the adjectives described them on an 8-point scale ranging from 1 (*extremely inaccurate*) to 8 (*extremely accurate*).

Upon arrival to the experiment, participants learned that they would be involved in two separate studies, the first being concerned with the design of a larger survey, and the second with the validation of scales. Participants were asked to complete a booklet that contained all experimental materials. To reinforce the cover-story the booklet consisted of two different parts, separated with colored sheets. The first part manipulated ease of

retrieval asking participants to generate arguments in favor of introducing biometric ID cards. The second part contained the dependent measures. Participants were informed that the study examines people's views about current issues and that their answers will help to design a questionnaire for a later survey. Participants were asked to read the following information carefully:

> Recently the government launched an ID card bill. This bill pushes for the introduction of a national identity card, which presents one component of the government's legislative plan that puts an emphasis on security measures. The new ID cards contain biometric information stored on a microchip. This includes fingerprints, facial scans and iris scans, all of which are unique to each individual. A national database would be created holding personal information such as names, addresses, and biometric information for all cardholders. The scheme elicited much controversial reactions.

After reading this information participants were asked to generate either three arguments or seven arguments in favor of the new identity card. The number of arguments was chosen based on a pre-test in which participants (N = 20) were asked to generate as many distinct arguments as they could think of (M = 4.45, SD = 1.50). After generating the arguments participants in the main study responded to two items measuring their attitudes towards the new biometric ID cards. The first item asked participants to indicate their attitude towards the new IDs (1 *negative* to 9 *positive*), and the second item assessed how much participants would welcome the introduction of the new ID cards (1 *not at all* to 9 *very much*). Participants also indicated their current mood on four 7-point scales, –3 (*very bad; very sad; very discontent; very tense)* to 3 *(very good; very happy*, *very content; very relaxed).* A subsequent thought-listing task instructed participants to list any thoughts they had while they were generating their arguments in favor of the new ID cards. Participants received a separate sheet for each argument, and were instructed to write each distinct thought they had on a separate line. For each argument participants could write down up to five thoughts. They were assured that any thought was of relevance, and that there were no right or wrong answers.

A questionnaire was sent to participants after one week had elapsed, asking them to rate their attitudes towards the introduction of the biometric ID card on the same rating scales used in T1. Ninety participants (70.31%) replied to this follow-up questionnaire. A written debrief was subsequently emailed to all participants involved in the study.

Results and Discussion

Manipulation Check

A manipulation check asked participants to indicate how easy or difficult it was for them to generate the requested number of arguments, on a 9-point scale ranging from 1 (*very easy*) to 9 (*very difficult*). Scores were reverse coded and subjected to an independent *t*-test, which confirmed that generating three arguments was indeed perceived to be easier than generating seven arguments (*M*s = 4.72 vs. 3.59), $t(126) = 3.13$, $p = .002$.

Attitudes at Time 1

The eight items of the dominance scale were first combined into a single score ($\alpha = .83$; $M = 4.87$, $SD = .1.07$). The two items measuring attitudes at T1 were highly correlated and also collapsed to form a single score for participants' attitudes ($\alpha = .98$; $M = 5.20$; $SD = 2.17$). The standardized dominance scores, number of arguments, as well as the interaction term of those two variables were entered as predictors of participants' attitude score (see Aiken & West, 1991). This analysis yielded a significant main effect of dominance, $\beta = .19$, $p = .029$. The more dominant participants were, the more they welcomed the new ID cards. More importantly, the expected interaction between trait dominance and number of arguments was significant, $\beta = -.20$, $p = .021$. As can be seen in the top panel of Figure 1, generating few arguments resulted in a more favorable attitude than generating many arguments for participants high in dominance (+1SD: *M*s = 5.82 vs. 5.38), whereas the opposite tendency was evident for participants low in trait dominance (-1SD: *M*s = 4.54 vs. 4.99). There was no main effect of number of

arguments, $t<1$. The variance explained by the model (7.4%) was significant, $F(3, 124) = 3.32$, $p = .022$. In sum, paralleling the findings obtained in the previous studies, the results indicate that trait dominance moderates reliance on the ease of retrieval. The more participants were dominant, the more they were influenced by the experienced ease of retrieval. Conversely, the less participants were dominant, the more they drew on the content of the information they retrieved.

Attitudes at Time 2

Thirty percent of participants did not reply to the Time 2 (T2) measures. This dropout was, however, independent of experimental conditions, $\chi^2(N = 128) = .77$, *ns,* and of T1-attitudes towards the biometric ID cards, $t(126) = .45$, *ns*. Responses were, however, related to participants' dominance scores, $t(126) = 2.03$, $p = .044$. Somewhat surprisingly, respondents were on average more dominant than non-respondents (*M*s= 4.97 vs. 4.55). Importantly for our purpose, this dropout is unlikely to have produced a biasing effect on the key interaction between dominance and ease of retrieval.

We first examined the relationship between T1 and T2 attitudes. Participants' evaluations of the ID cards were highly correlated ($r(89) = .88$, $p < .001$), and this association did not vary as a function of dominance, $r(89) = -.06$, *ns*. This result indicates that attitudes were stable over time. We then regressed participants' dominance scores, number of arguments, as well as the corresponding interaction term onto the combined T2-attitude scores ($\alpha = .97$; $M = 5.18$; $SD = 2.05$). The analysis revealed that the interaction between trait dominance and number of arguments was significant, $\beta = -.28$, $p = .008$, which is illustrated in the bottom panel of Figure 1. This indicates that the effect of the initial manipulation of ease of retrieval was still evident after one week had elapsed. No other significant effects were found, *t*s<1. The variance explained by the model (8.4%) approached statistical significance, $F(3, 86) = 2.64$, $p = .054$.

Taken together these results are consistent with the hypothesis that dominant individuals rely more on ease of retrieval, and that ease of retrieval can affect attitudes outside the context in which it was initially operating. The effects of the experimental manipulation of ease of retrieval were still evident after one week had elapsed, demonstrating that subjective experiences can have enduring effects.

Mood.

The four items assessing mood were highly correlated and collapsed into a single index (α = .88; M = .83; SD = 1.12). An initial correlation analysis revealed a positive association between dominance and elevated mood, $r(127) = .31$, $p < .001$. Dominant participants were in a better mood than non-dominant participants. However, when we controlled for the effects of mood, the joint effect of trait dominance and number of arguments on attitudes remained significant (T1: β = -.25, p = .008; T2: β = -.30, p = .008). These results exclude, therefore, the possibility that mood mediated the effects of dominance on reliance on ease of retrieval (cf. Kenny, Kashy, & Bolger, 1998).

Counter-Attitudinal Thoughts

We examined the number of counter-arguments generated during the thought listing task. Specifically, for each participant the total number of supportive, opposing, and neutral (unrelated or indifferent) thoughts were counted. Reliability was established by having a second rater code 2/3 of the total sample (α = .96). We computed an index of counter-attitudinal thought-bias by subtracting for each participant the total number of opposing thoughts from the total number of supportive thoughts. Trait dominance, number of arguments, as well as the interaction term between these two factors were then regressed on this index. The results indicate that number of arguments had a significant effect on thought-bias, β = .20, p = .025. Participants had relatively more positive thoughts when they generated many as opposed to few arguments. No other effects were

significant (*t*s<1), which suggests that differences in the number of counter-attitudinal thoughts cannot account for the relationship between dominance and reliance on the ease of retrieval.

Taken together these results are consistent with the previous studies indicating that powerful individuals relied more on ease of retrieval compared to powerless individuals. Furthermore, the present study demonstrated that ease of retrieval can have more enduring effects than previously considered. Reliance on the ease of retrieval does not preclude some temporal stability of the judgments and attitudes of powerful individuals.

Moreover, examining power from an individual-difference perspective allowed us to confirm a linear relationship between power and reliance on ease of retrieval experiences. Finally, the present study contributed to rule out alternative explanations for ease of retrieval effects. Study 1b indicated that variations in the persuasiveness of the generated arguments cannot account for the effects of power. The present study further demonstrates that differences in the number of counter-attitudinal arguments generated during the retrieval process can also not account for the results. Consistent with the previous studies, the effects obtained were independent of mood. The results are best interpreted in terms of direct effects of power on reliance on ease of retrieval.

General Discussion

The present article examined the effects of power on reliance on experiential information. Thereby our focus was the experienced ease or difficulty associated with the retrieval of mental contents. Based on the assumption derived from the Situated Focus Theory of Power that power promotes reliance on the primary factors that drive cognition (Guinote, in press) and that the ease of retrieval usually guides judgment (Kahneman, 2003; see also Menon & Raghubir, 2003; Pam et al., 2001), we hypothesized that powerful individuals, more than powerless individuals, rely on the ease of retrieval.

Using a variety of operationalizations of power, and investigating different domains such as attitude-judgments towards irrelevant (Study 1a) or relevant targets (Study 4), self-related judgments (Study 2), and stereotypes (Study 3), we consistently found that power promotes reliance on ease of retrieval experiences. The judgments of powerful participants were more in line with the content of the retrieved information when retrieval was easy, compared to when retrieval was difficult. Conversely, the judgments of powerless participants were not affected by experiential information and tended to be based on the content of the retrieved information.

Compared to the results of powerless individuals, the results of powerful individuals are closer to the results usually obtained with the ease of retrieval paradigm (e.g., Schwarz et al., 1991). One could think that the effects reported in this article are mainly driven by powerlessness rather than by power. We believe, however, that power has linear effects on reliance on ease of retrieval. This assumption is supported by Study 4: Using trait dominance as a proxy for power we found a linear relationship between power and reliance on the ease of retrieval. That is, the more individuals usually exerted power, the more their judgments were likely to be guided by experiential information. Conversely, the more individuals were submissive, the more they were prone to draw on additional sources of information to inform their judgments.

Throughout the various studies we made an effort to rule out alternative explanations for the effects obtained. Some authors argue that power induces positive mood (Keltner et al., 2003). It has also been shown that mood increases reliance on ease of retrieval (Ruder & Bless, 2003). Therefore, we examined whether power affected mood and this in turn explained differences in reliance on the ease of retrieval. Consistently across all studies mood did not account for the results obtained. Mood and

power have therefore independent effects on the extent to which individuals rely on the ease of retrieval.

An additional alternative explanation pertains to differences in the content of the information retrieved by powerful and powerless participants across the two levels of ease of retrieval. Specifically, it is conceivable that the persuasiveness, the valence of the information retrieved, or the number of counter-arguments generated varied more as a function of the amount of information retrieved for powerful compared to powerless individuals. Using external observers (Study 1b) as well as a thought-listing task (Study 4) we could, however, not find support for these mechanisms.

Another alternative explanation pertains to differences in processing motivation and effort. Powerful individuals may be less motivated to process information, and therefore rely on subjective experiences (see Aarts & Dijksterhuis, 1999; Rothman & Schwarz, 1998). Although we argue that powerful individuals rely on those aspects that are primary in a given situation (see Guinote, in press), we believe that these effects are independent of effort. In other words, power affects what information individuals process but not necessarily the effort involved in processing (see Guinote, in 2007-b; in press).

Several findings contradict an explanation in terms of effort: Participants primed with power generated higher quality arguments than participants primed with powerlessness (Study 1a-b). Moreover, the instances retrieved by powerful and powerless participants were similar on a number of criteria, for example, time involved in the activities reported (Study 2), and number of counter-arguments generated (Study 4). Finally, the results obtained do not seem to derive from differences in the effects of our manipulation of ease of retrieval, as indicated by our manipulation checks. Taken together, these results suggest that power directly increased reliance on ease of retrieval.

Implications of the Present Findings

The present findings rectify an important neglect in past research on power, demonstrating that a full account of the effects of power needs to consider subjective experiences. Taking into account subjective experiences leads to different predictions, qualifying and often reversing the predictions made on the basis of declarative thought-contents (see Schwarz, 1998). Furthermore, the present findings highlight that power promotes malleable responses, construed in the situation on the basis of momentary experiences individuals have. These findings have consequences for several domains.

Power and the Self: Researchers have argued that power promotes responses in line with dispositions of the person (Chen et al., 2001; see also Smith & Trope, 2006). In contrast, the present findings demonstrate that the self-related judgments of powerful individuals are subject to temporary influences of subjective experiences and, therefore, more malleable than it has previously been considered.

Nevertheless, in line with the Situated Focus Theory of Power (Guinote, in press) we believe that power induces a selective processing of information. We believe, therefore, that power can magnify the expression of person variables, but only in situations where those chronic person constructs are the primary factors that drive cognition (see Higgins, 1996; Higgins, King, & Mavin, 1982).

Power and Stereotyping: A great deal of past research on power has focused on social perception (e.g., Chen, et al. 2001; Chen et al., 2004; Dépret & Fiske, 1999; Fiske, 1993; Goodwin et al., 19998; Goodwin et al., 2000; Gubin et al., 2000; Guinote et al., 2002; Overbeck & Park, 2001; Overbeck & Park, 2006; Richeson & Ambady, 2002; Stevens & Fiske, 2000; Vescio et al., 2003; Vescio et al., 2005). This work was based on the effects of declarative information on stereotyping.

Previous research has shown that power promotes stereotypic social perceptions when stereotype-consistent information is present in the environment (e.g., Fiske, 1993; Fiske & Dépret, 1996), and when stereotypes are instrumental to the person's current goals (Overbeck & Park, 2006; Vescio et al., 2003, see also Guinote, 2007-e). The present findings provide an important extension, showing that in the absence of external cues or processing objectives power can promote both individuation and stereotypic perceptions depending on momentary experiences.

Power and Behavior Variability: Past research found that powerful groups are perceived as more variable than powerless groups (Guinote, 2001; see also Lorenzo-Cioldi, 1993; Simon & Brown, 1987). This occurs in part because powerful individuals act objectively in more variable ways compared to powerless individuals (Guinote et al., 2002).

To demonstrate this phenomenon, Guinote and her colleagues assigned participants randomly to powerful and powerless groups, and videotaped them while working on different tasks. Subsequently, observers, who were unaware of the power relations between the groups, rated each group member along several personality traits. Observers rated the members of powerful groups as more variable from one another than the members of powerless groups. Power increased, therefore, interpersonal behavior variability. Since subjective experiences vary across individuals reliance on these experiences may contribute to greater interpersonal variability in the judgments and behavior of powerful compared to powerless individuals. Furthermore, since subjective experiences also vary within individuals, reliance on subjective experiences may also induce greater intrapersonal variability in powerful compared to powerless individuals.

Attitudes and Subjective Experiences: The present findings not only indicate that the attitudes of powerful individuals are dependent on subjective experiences, but they also have implications for the understanding of ease of retrieval. We hypothesized, as far as

we know for the first time, that attitudes that are formed based on ease of retrieval can be stable over time. Although attitudes are often construed in the situation based on cues that are temporarily accessible (e.g., Schwarz & Bohner, 2001), individuals can rely on past evaluations stored in memory to construe their judgments (see Judd & Brauer, 1995). Therefore, we reasoned that the initial judgments and possibly the ease or difficulty in retrieving information (see Barsalou, 1999) can be stored in memory and affect later judgments, thereby resulting in some stability over time. The results of Study 4 supported this hypothesis.

The finding that power moderates ease of retrieval is also important for our understanding of attitudes and attitude formation. Research has largely focused on contextual variables (e.g., Lerner & Gonzales, 2005; Ruder & Bless, 2003) and characteristics of the target (e.g., Gawronski, Bodenhausen, & Banse, 2005; Rothman & Hardin, 1997) that affect reliance on the ease of retrieval. The present findings indicate that structural variables associated with the extent to which individuals control outcomes, as well as dispositional variables associated with the tendency to dominate and influence others, affect the extent to which individuals rely on the ease of retrieval.

Conclusion

The present research points out that an understanding of the effects of power requires a consideration of experiential information. Power promotes reliance on subjective experiences independently of factors such as motivation, persuasiveness, thought contents, and mood. Taking into account experiential knowledge leads to differential predictions of the effects of power than those commonly considered in the literature. This highlights the flexibility of powerful individuals' attitudes and perceptions.

References

Aarts, H., & Dijksterhuis, A. (1999). How often did I do it? Experienced ease of retrieval and frequency estimates of past behavior. *Acta Psychologica, 103*, 77-89.

Aiken, L. S., & West, S. G. (1991). *Multiple regression: Testing and interpreting interactions*. Thousand Oaks, CA: Sage Publications

Anderson, C., & Berdahl, J. L. (2002). The experience of power: Examining the effects of power on approach and inhibition tendencies. *Journal of Personality and Social Psychology, 83*, 1362-1377.

Barsalou, L. W. (1999). Perceptual symbol systems. *Behavioural and Brain Science, 22*, 577-660.

Bem, S. L. (1976). Probing the promise of androgyny. In A. G. Kaplan & J. P. Bean (Eds.), *Beyond sex-role stereotypes: Readings toward a psychology of androgyn* (pp. 48-62). Boston, Toronto: Little, Brown & Company.

Bless, H., Fiedler, K., & Strack, F. (2004). *Social cognition: How individuals construct social reality*. NY: Taylor & Francis.

Bless, H., & Forgas, J. P. (2000). *The message within: The role of subjective experience in social cognition and behavior*. Phiadelphia: Psychology Press.

Bohner, G., & Wänke, M. (2002). *Attitudes and attitude change*. Hove, UK: Psychology Press.

Cartwright, D. (1959). A field theoretical conception of power. In D. Cartwright (Ed.), *Studies in social power* (pp. 86-103). Ann Arbor: University of Michigan Press.

Chen, S., Lee-Chai, A. Y., & Bargh, J. A. (2001). Relationship orientation as a moderator of the effects of social power. *Journal of Personality and Social Psychology, 80*, 173-187.

Chen, S., Ybarra, O., & Kiefer, A. K. (2004). Power and impression formation: Effects of power on the desire for morality and competence information. *Social Cognition, 22*, 391-421.

Copeland, J. T. (1994). Prophecies of power: Motivational implications of social power for behavioral confirmation. *Journal of Personality and Social Psychology, 80*, 183-187.

Dépret, E., & Fiske, S. T. (1999). Perceiving the powerful: Intriguing individuals versus threatening groups. *Journal of Experimental Social Psychology, 35*, 461-480.

Dijksterhuis, A., Macrae, C. N., & Haddock, G. (1999). The recollective experiences matter: Subjective ease of retrieval and stereotyping. *Personality and Social Psychology Bulletin, 25*, 766-774.

Fiske, S. T., & Dépret, E. (1996). Control, interdependence and power: Understanding social cognition in its social context. In W. Stroebe & M. Hewstone (Eds.), *European Review of Social Psychology* (Vol. 7, pp. 31-61). Sussex: John Wiley & Sons Ltd.

Fiske, S. T. (1993). Controlling other people: The impact of power on stereotyping. *American Psychologist, 48*, 621-628.

Förster, J., & Liberman, N. (2001). The role of attribution of motivation in producing postsuppressional rebound. *Journal of Personality and Social Psychology, 81*, 377-390.

Förster, J., & Liberman, N. (2004). A motivational model of post-suppressional rebound. In W. Stroebe & M. Hewstone (Eds.), *European Review of Social Psychology* (Vol. 15, pp. 1-32). Sussex: John Wiley & Sons Ltd.

Galinsky, A. D., Gruenfeld, D. H., & Magee, J. C. (2003). Power and action. *Journal of Personality and Social Psychology, 85*, 453-466.

Galinsky, A. D., Magee, J. C., Inesi, M. E., & Gruenfeld, D. H. (2006). Power and perspectives not taken. *Psychological Science, 17*, 1068-1074.

Gawronski, B., & Bodenhausen, G. V. (2005). Accessibility effects on implicit social cognition: The role of knowledge activation and retrieval experiences. *Journal of Personality and Social Psychology, 89*, 672-685.

Gawronski, B., Bodenhausen, G. V., & Banse, R. (2005). We are, therefore they aren't: Ingroup construals as a standard of comparison for outgroup judgments. *Journal of Experimental Social Psychology, 41*, 515-526.

Goodwin, S. A., Gubin, A., Fiske, S. T., & Yzerbyt, V. Y. (2000). Power can bias impression processes: Stereotyping subordinates by default and by design. *Group Processes and Intergroup Relations, 3*, 227-256.

Goodwin, S. A., Operario, D., & Fiske, S. T. (1998). Situational power and interpersonal dominance facilitate bias and inequality. *Journal of Social Issues, 54,* 677-698.

Greenwald, A. G. (1968). Cognitive learning, cognitive response to persuasion, and attitude change. In A. G. Greenwald, T. C. Brock, & T. M. Ostrom (Eds.), *Psychological foundations of attitudes* (pp. 148-170). New York: Academic Press.

Guinote, A., (2001). The perception of group variability in a non-minority and a minority context: When adaptation leads to out-group differentiation. *British Journal of Social Psychology, 40*, 117-132.

Guinote, A. (2004). Group size, outcome dependency, and power: Effects on perceived and actual group variability. In V. Yzerbyt, C. Judd, & O. Corneille (Eds). *The psychology of group perception: Contributions to the study of homogeneity, entitativity, and essentialism* (pp. 221-236). New York: Psychology Press.

Guinote, A. (2007-a). Power and the suppression of unwanted thoughts: Does control over others decrease control over the Self? *Journal of Experimental Social Psychology, 43*, 433-440.

Guinote, A. (2007-b). Power affects basic cognition: Increased attentional inhibition and flexibility. *Journal of Experimental Social Psychology, 43*, 685-697.

Guinote, A. (2007-c). *In touch with your feelings: Power, behavior, and inner states*. Manuscript submitted for publication.

Guinote, A. (2007-d). *Power and Stereotyping: Evidence from Managers and Subordinates in the Industry*. Manuscript submitted for publication.

Guinote, A. (2007-e). Power and Goal Pursuit. *Personality and Social Psychology Bulletin, 33*, 1076-1087.

Guinote, A. (in press). Behaviour variability and the Situated Focus Theory of Power. In W. Stroebe, & M. Hewstone (Eds.), *European Review of Social Psychology*. New York: Wiley.

Guinote, A. Brown, M., & Fiske, S. T. (2006). Minority status decreases sense of control and increases interpretive processing. *Social Cognition, 24*, 170-187.

Guinote, A., Judd, C. M., & Brauer, M. (2002). Effects of power on perceived and objective group variability: Evidence that more powerful groups are more variable. *Journal of Personality and Social Psychology, 82*, 708-721.

Haddock, G. (2000). Subjective ease of retrieval and attitude-relevant judgments. In H. Bless & J.P. Forgas (Eds.). *The message within: The role of subjective experience in social cognition and behavior* (pp. 125-142). Philadelphia, US: Psychology Press.

Hecht, D. B., & LaFrance, M. (1998). License or obligation to smile: The effect of power and sex on amount and type of smiling. *Personality and Social Psychology Bulletin, 24*, 1332-1342.

Higgins, E. T. (1996). Knowledge activation: Accessibility, applicability, and salience. In E. T. Higgins & A. W. Kruglanski (Eds.), *Social psychology: Handbook of basic principles* (pp. 133-168). New York: Guilford Press.

Higgins, E. T., King, G. A., & Mavin, G. H., (1982). Individual construct accessibility and subjective impressions and recall. *Journal of Personality and Social Psychology, 43*, 35-47.

Hollander, E. F. (1958). Conformity, status, and idiosyncrasy credit. *Psychological Review, 65*, 117-127.

Howell, D. C (1995). *Fundamental statistics for the behavioral sciences* (3rd ed.). Belmont: Thomson.

Jost, T. J., & Kay, A. C. (2005). Exposure to benevolent sexism and complementary gender stereotypes: Consequences for specific and diffuse forms of system justification. *Journal of Personality and Social Psychology, 88*, 498-509.

Judd, C. M., & Brauer, M. (1995). Repetition and evaluative extremity. In R. E. Petty & J. A. Krosnick (Eds.), *Attitude strength: Antecedents and consequences* (pp. 43–71). Hillsdale, NJ: Erlbaum.

Kahneman, D. (2003). A perspective on judgment and choice: Mapping bounded rationality. *American Psychologist, 58*, 697-720.

Kahneman, D., & Frederick, S. (2002). Representativeness revisited: Attribute substitution in inuitive judgment. In T. Golovich, D. Griffin, & D. Kahneman (Eds.), *Heuristics and biases: The Psychology of intuitive judgment* (pp. 49-81). Cambride, UK: Cambridge University Press.

Keltner, D., Gruenfeld, D. H., & Anderson, C. (2003). Power, approach, and inhibition. *Psychological Review, 110*, 265-284.

Keltner, D., & Robinson, R. J. (1997). Defending the status quo: Power and bias in social conflict. *Personality and Social Psychology Bulletin, 23*, 1066-1077.

Kenny, D. A., Kashy, D. A., & Bolger, N. (1998). Data analysis in social psychology. In D. Gilbert, S. Fiske, & G. Lindzey (Eds.), *Handbook of social psychology* (4th ed., Vol. 1, pp. 233-265). Boston, MA: McGraw-Hill.

Lerner, J.S., & Gonzales, R.M. (2005). Forecasting one's future based on fleeting subjective experiences. *Personality and Social Psychology Bulletin, 31*, 454-466.

Lewin, K. (1941). Regression, retrogression and development. *University of Iowa Studies of Child Welfare, 18*, 1-43.

Lorenzo-Cioldi, F. (1993). They all look alike, but so do we, sometimes … Perception of ingroup and outgroup homogeneity as a function of gender and context. *British Journal of Social Psychology, 32*, 111-124.

Maheswaran, D. & Chaiken, S. (1991). Promoting systematic processing in low-motivation settings: Effects of incongruent information on processing and judgment. *Journal of Personality and Social Psychology, 1*, 13-25.

Mannix, E. A., & Neale, M. A. (1993). Power imbalance and the pattern of exchange in dyadic negotiation. *Group Decision and Negotiation, 2*, 119-133.

Menon, G., & Raghubir, P. (2003). Ease of retrieval as an automatic input in judgments: A mere-accessibility framework. *Journal of Consumer Research, 30*, 230-243.

Operario, D., & Fiske, S. T. (2001). Effects of trait dominance on powerholders' judgments of subordinates. *Social Cognition, 19*, 161-180.

Overbeck, J. R., & Park, B. (2001). When power does not corrupt: Superior individuation processes among powerful perceivers. *Journal of Personality and Social Psychology, 81*, 549-565.

Overbeck, J. R., & Park, B. (2006). Powerful perceivers, powerless objects: Flexibility of powerholders' social attention. *Organizational Behavior and Human Decision Processes, 99*, 227-243.

Pam, M. T., Cohen, J. B., Pracejus, J. W., & Hughes, G. D. (2001). Affect monitoring and the primacy of feelings. *Journal of Consumer Research, 28*, 167-188.

Park, B., & Judd, C. M. (1990). Measures and models of perceived group variability. *Journal of Personality and Social Psychology, 59*, 173-191.

Pittman, T. S. (1993). Control motivation and attitude change. In G. Weary, F. Gleicher, & K. Marsh (Eds.), *Control motivation and social cognition* (pp. 157-175). NY: Springer-Verlag.

Powlishta, K. K. (1995). Intergroup processes in childhood: Social categorization and sex role development. *Developmental Psychology, 31*, 781-788.

Raghubir, P., & Menon, G. (2005). When and why is ease of retrieval informative? *Memory and Cognition, 33*, 821-832.

Richenson, J. A. & Ambady, N. (2001). Effects of situational power on automatic racial prejudice. *Journal of Experimental Social Psychology*, *39*, 177-183.

Rodriguez-Bailon, R., Moya, M., & Yzerbyt, V. (2000). Why do superiors attend to negative stereotypic information about their subordinates? Effects of power legitimacy on social perception. *European Journal of Social Psychology, 30*, 651-671.

Rothman, A. J., & Hardin, C. D. (1997). Differential use of the availability heuristic in social judgments. *Personality and Social Psychology Bulletin, 23*, 123-138.

Rothman, A. J., & Schwarz, N. (1998). Constructing perceptions of vulnerability: Personal relevance and the use of experiential information in health judgments. *Personality and Social Psychology Bulletin, 24*, 1053-1064.

Ruder, M., & Bless, H. (2003). Mood and the reliance on the ease of retrieval heuristic. *Journal of Personality and Social Psychology, 85*, 20-32.

Schwarz, N. (1998). Accessible content and accessibility experiences: The interplay of declarative and experiential information in judgment. *Personality and Social Psychology Review, 2*, 87-99.

Schwarz, N. (2004). Metacognitive experiences in consumer judgments and decision making. *Journal of Consumer Psychology, 14*, 332-348.

Schwarz, N., Bless, H., Strack, F., Klumpp, G., Rittenauer-Schatka, H., & Simons, A. (1991). Ease of retrieval as information: Another look at the availability heuristic. *Journal of Personality and Social Psychology, 61*, 195-202.

Schwarz, N., & Bohner, G. (2001). The construction of attitudes. In A. Tesser & N. Schwarz (Eds.), *Blackwell handbook of social psychology: Intraindividual processes* (Vol. 1, pp. 436-457). Oxford, UK: Blackwell.

Schwarz, N., & Clore, G. L. (1996). Feelings and phenomenological experiences. In E.T. Higgins, & A.W. Kruglanski (Eds.), *Social Psychology: Handbook of basic principles* (pp. 433-465). New York: Guilford Press.

Schwarz, N., & Vaughn, L. A. (2002). The availability heuristic revisited: Ease of recall and content of recall as distinct sources of information. In T. Golovich, D. Griffin, & D. Kahneman (Eds.), *Heuristics and biases: The Psychology of intuitive judgment* (pp. 103-119). Cambride, UK: Cambridge University Press.

Simon, B., & Brown, R. (1987). Perceived intragroup homogeneity in minority-majority contexts. *Journal of Personality and Social Psychology, 53*, 703-711.

Smith, P. K., & Trope, Y. (2006). You focus on the forest when you are in charge of the trees: Power priming and abstract information processing. *Journal of Personality and Social Psychology, 90,* 578-596.

Spence, J. T., Helmreich, R. L., & Holahan, C. K. (1979). Negative and positive components of psychological masculinity and femininity and their relationship to self-reports of neurotic and acting out behaviors. *Journal of Personality and Social Psychology, 37*, 1673-1682.

Stevens, L., & Fiske, S. T. (2000). Motivated impressions of a powerholder: Accuracy under task dependency and misperception under evaluation dependency. *Personality and Social Psychology Bulletin, 26*, 907-922.

Strack, F. (1992). The different routes to social judgments: Experiential versus informational strategies. In L.L. Martin & A. Tesser (Eds.), *The construction of social judgments* (pp. 249-275). Hillsdale, NJ: Erlbaum.

Thibaut, J. W., & Kelley, H. H. (1959). *The social psychology of groups*. New York: Wiley.

Tormala, Z. L., Petty, R. E., & Briñol, P. (2002). Ease of retrieval effects in persuasion: A self-validation analysis. *Personality and Social Psychology Bulletin, 28*, 1700-1712.

Tversky, A., & Kahneman, D. (1973). Availability: A heuristic for judging frequency and probability. *Cognitive Psychology, 5*, 207-232.

Vescio, T. K., Gervais, S. J., Snyder, M., & Hoover, A. (2005). Power and the creation of patronizing environments: The stereotype-based behaviors of the powerful and their effects on female performance in masculine domains. *Journal of Personality and Social Psychology, 88,* 658-672.

Vescio, T. K., Snyder, M., & Butz, D. A. (2003). Power in stereotypically masculine domains: A social influence strategy X stereotype match model. *Journal of Personality and Social Psychology, 85, 1062-1078.*

Wänke, M., & Bless, H. (2000). The effects of subjective ease of retrieval on attitudinal judgments: The moderating role of processing motivation. In H. Bless & J. P. Forgas (Eds.). *The message within: The role of subjective experience in social cognition and behavior* (pp. 143-161). Philadelphia, US: Psychology Press.

Wänke, M., Bless, H., & Biller, B. (1996). Subjective experience versus content of information in the construction of attitude-judgments. *Personality and Social Psychology Bulletin, 22*, 1105-1113.

Wänke, M., Bohner, G., & Jurkowitsch, A. (1997). There are many reasons to drive a BMW: Does imagined ease of argument generation influence attitudes? *Journal of Consumer Research, 24*, 170-177.

Whittlesea, B. W. A., & Williams, L. D. (1998). Why do strangers feel familiar, but friends don't? A discrepancy-attribution account of feelings of familiarity. *Acta Psychologica, 98*, 141-165.

Wiggins, J. S., Trappnell, P. & Phillips, N. (1988). Psychometric properties and geometric characteristics of the Revised Interpersonal Adjective Scales (IAS-R). *Multivariate Behavioral Research, 23*, 517-530.

Winkielman, P., & Schwarz, N. (2001). How pleasant was your childhood? Beliefs about memory shape inferences from experienced difficulty of recall. *Psychological Science, 12*, 176-179.

Winkielman, P., Schwarz, N., & Bellig, R. F. (1998). The role of ease of retrieval and attribution in memory judgments: Judging your memory as worse despite recalling more events. *Psychological Science, 9*, 124-126.

Williams, J. E., & Best, D. L. (1982). *Measuring sex stereotypes: A thirty-nation study*. Berkeley, CA: Sage Publications.

Wilson, T. D., & Hodges, S. D. (1992). Attitudes as temporary construction. In L. L. Martin & A. Tesser (Eds.), *The construction of social judgments* (pp. 37-66). Hillsdale, NJ: Erlbaum.

Wilson, T. D., Wheatley, T., Meyers, J. M., Gilbert, D. T., & Axsom, D. (2000). Focalism: A source of durability bias in affective forecasting. *Journal of Personality and Social Psychology, 78*, 821-836.

Yee, M., & Brown, R. (1994). The development of gender differentiation in young children. *Child Development, 33*, 183-196.

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Footnotes

[1] A large number of arguments can be more favorable towards the attitude object compared to a small number of arguments (e.g. Ruder & Bless, 2003). However, empirical evidence indicates that this is not necessarily always the case (see Haddock, 2000; Tormala, Pretty, & Brinol, 2002).

[2] Two participants did not indicate their gender in the questionnaire.

[3] See Wilson, Wheatley, Meyers, Gilbert, and Axsom (2000) for a discussion of a single item mood measure.

[4] Across studies tests of simple effects were conducted using Fisher's least significant difference (LSD) test, which requires a significant higher order interaction (see Howell, 1995). In Study 1b simple effects were still significant after Bonferroni correction to adjust the familywise error rate for the number of comparisons made (α' = .05/4 = .0125).

[5] Eight managers (18.2%) and eleven subordinates (28.2%) did not indicate their current job-level.

[6] We also examined the role of age and gender. There was a tendency for age to be positively related to leisure time satisfaction, $r(79) = .21$, $p = .066$. Moreover, women reported lower levels of satisfaction than men (Ms = 3.71 vs. 4.66), $F(1, 81) = 4.27$, $p = .042$. However, participant age and gender did not have other effects (all ps $\geq .156$). Therefore, these factors were dropped from further analyses.

[7] These were unpredicted effects and, therefore, prone to Type 1 error inflation (e.g., Howell, 1995). After Bonferroni-correction to adjust alpha for the total number of possible comparisons between means none of the unpredicted effects remains significant (ps > .0017).

Table 1. Attitudes as a function of power and number of arguments retrieved (writers; Study 1a) or arguments studied (readers; Study 1b).

	Writers		Readers	
Number of arguments:	few	many	few	many
Power:				
Powerful				
M	6.97	4.88	6.27	6.38
SD	2.29	2.70	2.18	2.00
Powerless				
M	5.77	5.36	6.32	6.26
SD	2.31	2.41	2.29	2.31

Table 2. Satisfaction with leisure time as a function of organizational power and number of instances retrieved (Study 2).

Number of instances:	few	many
Position:		
Manager		
M	4.95	3.82
SD	1.77	1.88
Subordinates		
M	3.85	4.92
SD	1.99	1.64

Table 3. Gender stereotyping as a function of power and number of stereotypic attributes retrieved (Study 3).

Stereotyping:	Typicality		Percentage-Estimates	
Number of arguments:	few	many	few	many
Power:				
Powerful				
M	2.09	1.62	25.83	18.96
SD	1.10	.86	15.98	10.23
Powerless				
M	1.44	1.91	16.48	21.04
SD	.85	1.08	10.07	13.66

Figure 1. Attitudes towards the introduction of new biometric ID cards as a function of trait dominance and number of arguments (Study 4). Top panel: attitudes at Time 1; bottom panel: attitudes at Time 2. *Note:* Higher numbers indicate a more favorable attitude.